# REPORT OF THE 44<sup>th</sup> UCLA INTERNATIONAL KIR EXCHANGE OCTOBER 16, 2017

KIR 173-176

For the 44<sup>th</sup> KIR Exchange, 4 DNA samples (KDNA#173 - 176) were shipped to 77 laboratories worldwide. KIR typing results were received from 75 of the laboratories.

The results for the 44<sup>th</sup> KIR Exchange are summarized in Table 1 and individual laboratory results reported for each DNA sample are provided in Tables 2 - 5. Subtyping results for 2DL4, 2DL5A/B, 3DL1, 2DS1, 2DS4, and 3DP1 loci were reported by some laboratories. The subtypes for 2DS4 and

3DP1 are denoted as FULL or DEL. Overall, good agreement was achieved among laboratories in the positive/negative assignments for all 4 DNA samples, as 11 tested KIR loci (KIR2DL4, 3DL1, 3DL2, 3DL3, 3DS1, 2DS1, 2DS2, 2DS3, 2DS5, 2DP1, and 3DP1) were reported without discrepancy. Discrepant results from consensus are italicized in tables 1 - 5 and described in the summation for each sample. Discrepancies at the allele level are not italicized.

# KIR Exchange Sample: KDNA # 173:

The consensus KIR type for this sample from a Hispanic donor is KIR2DL1-2DL2-2DL3-2DL4-3DL1-3DL2-3DL3-2DS4FULL-2DP1-3DP1FULL&DEL. Several labs (Arnold, denHollander, Kusnierczyk, and Hartzman and Hurley, commented on the unusual haplotype present in this sample, as 2DL2 was present in the absence of 2DS2. In addition. Kusnierczyk noted "2DL2 was negative with Inno-train but positive with Olerup. The former test does not detect 2DL2\*006 or 2DL2\*013 whereas the latter detects both. Thus, there is a possibility that this individual possesses one of these extremely rare alleles." Two labs (1 SSO and 1 SSP) reported 2DL2 as negative. A few discrepancies were reported for this sample as 1 lab reported 2DL1 as negative and 2DL5 as positive. One other lab reported 2DL3 as negative instead of positive. Based on the presence or absence of genes and 2DL5 SBT, Hartzman and Hurley graciously provided the following haplotypes for this sample: cA01/cB02var with the absence of 2DS2 and tA01/tA01 (1). The genotype in this sample is observed in Caucasian Hispanics (0.8%) and in Singapore Malay populations (7.5%) (2).

# KIR Exchange Sample: KDNA # 174:

The consensus KIR type for this sample is KIR2DL1-2DL3-2DL4-2DL5A-3DL1-3DL2-3DL3-3DS1-2DS1-2DS4DEL-2DS5-2DP1-3DP1DEL. No race information was available for this sample. One lab reported 2DL3 as negative instead of positive. Arnold noted this sample as appearing to have A+AB haplotypes. Hartzman and Hurley made similar observations, reporting the predicted haplotypes in this sample as cA01/cA01 and tA01/tB01 (1). The genotype present in this sample is observed across all populations, with the highest frequencies observed among the Purepecha (30.2%) and Tarahumara (41.5%) tribes of Mexico (3, 4).

#### KIR Exchange Sample: KDNA # 175:

The consensus KIR type for this sample from a Hispanic donor is KIR2DL1-2DL2-2DL4-2DL5A&B-3DL1-3DL2-3DL3-3DS1-2DS1-2DS2-2DS3-2DS4DEL-2DS5-2DP1-3DP1FULL&DEL. One lab reported this sample as negative for 2DL5 and 1 lab noted it as negative for 2DS4. Two labs reporting by SSP reported 2DL3 as positive, with Marsh providing the following observations: "It was noticed that the PCR-SSP targeting 2DL3 for sample #175 initially failed to yield a strong positive result, although this was rectified by increasing the DNA concentration in subsequent reactions. As such, it is hypothesised by this lab that this allele may be rare or novel. We will attempt to use our NGS pipeline to investigate further." Hartzman and Hurley predicted the haplotypes in this sample to be either cB01/cB02 or cB01 and tA01/tB01 (1). The genotype in this sample is observed in Caucasian Hispanics (1.6%). It also observed in Asian Indian populations, with the highest frequencies observed among the Parisi (8%) and the Paravar (7.8%) (5).

#### References:

- 1. Vierra-Green C, Roe D, Hou L, et al. Allele-Level Haplotype Frequencies and Pairwise Linkage Disequilibrium for 14 KIR Loci in 506 European-American Individuals. PLoS ONE. 2012;7:1-10.
- 2. Middleton D, Meenagh A, Moscoso J, et al. Killer immunoglobulin receptor gene and allele frequencies in Caucasoid, Oriental and Black populations from different continents. Tissue Antigens 2008;71:105-113.
- 3. Gutierrez-Rodriguez ME, Sandoval-Ramirez L, Diaz-Flores M, et al. Human KIR Gene in Ethnic and Mestizo Populations from Mexico. Human Immunology 2006;67:85-93.

#### KIR Exchange Sample: KDNA # 176:

The consensus KIR type for this sample from a donor of Filipino descent is KIR2DL1-2DL2-2DL3-2DL4-2DL5B-3DL1-3DL2-3DL3-2DS2-2DS3-2DS4DEL-2DP1-3DP1DEL. Hartzman and Hurley detected the presence of a possible new 2DL5B\*00201 variant in this sample, noting the new allele was detected by SBT, "Exon2 nucleotide 61 A to C, In Codon -1 ACA to CCA, Amino acid T to P." Only a single discrepancy was reported for this sample, as 1 lab reported 2DS4 as negative. Predicted haplotypes reported by Hartzman and Hurley were cA01/cB01 and tA01/tA01 (1). Arnold reported similar observations, noting the possible haplotypes present appear to be A+AB. The genotype in this sample is observed in Southeast Asian populations, with the highest frequency observed among the Tokelau (17%). It is also observed in African populations with the highest frequency observed among Senegal African populations (17%) (6).

- Gendzekhadze K., Norman PJ, Abi-Rached L, et al. High KIR diversity in Amerindians is maintained using few gene-content haplotypes. Immunogenetics 2006;58:474-480.
- 5. Ashouri E, Farjadian S, Reed EF, et al. KIR gene content diversity in four Iranian populations. Immunogenetics. 2009;61:483-492.
- 6. Norman PJ, Carrington CV, Byng M, Maxwell LD, Curran MD, et al. Natural killer cell immunoglobulin-like receptor (KIR) locus profiles in African and South Asian populations. Genes Immun 2002;3:86–95.



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Table 1. Summary of the 44<sup>th</sup> KIR Exchange (KDNA #173-176)

KIR																		
Ex.	DNA	# Labs	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1
	173	75	<b>POS[74]</b> NEG[1]	POS[72] NEG[2] NT[1]		POS[72] FULL[1] NT[2]	<b>NEG[74]</b> <i>POS[1]</i>	<b>POS[74]</b> *001[1]	<b>POS[74]</b> NT[1]	POS[73] NT[2]	NEG[75]	NEG[75]	NEG[75]	NEG[75]	POS[48] FULL[27]	NEG[75]	<b>POS[74]</b> NT[1]	POS[62] FULL, DEL[11] NT[2]
	174	75	POS[75]	NEG[75]	<b>POS[74]</b> <i>NEG[1]</i>	<b>POS[73]</b> NT[2]	POS[58] A*00101[1] A[16]	<b>POS[74]</b> *001[1]	<b>POS[74]</b> NT[1]	<b>POS[73]</b> NT[2]	POS[75]	POS[73] *002[1] *002- *008[1]	NEG[75]	NEG[75]	POS[47] DEL[28]	POS[75]	<b>POS[74]</b> NT[1]	POS[54] DEL[17] FULL,DEL[ 1] NT[3]
#44	175	75	POS[75]		<b>NEG[72]</b> POS[2]	FULL[1]	POS[63] A*00101, B*00201[1] A, B[10] NEG[1]	<b>POS[74]</b> *001[1]	<b>POS[74]</b> NT[1]	<b>POS[73]</b> NT[2]	POS[75]	POS[73] *002- *008[1] *002[1]	POS[75]	POS[75]	POS[46] DEL[28] NEG[1]	POS[75]	<b>POS[74]</b> NT[1]	POS[62] FULL,DEL [10] DEL[1] NT[2]
	176	75	POS[75]	POS[75]	POS[75]	POS[72] FULL[1] NT[2]	POS[58] B*00201V[1] B[16]	<b>POS[74]</b> *001[1]	<b>POS[74]</b> NT[1]	<b>POS[73]</b> NT[2]	NEG[75]	NEG[75]			POS[46] DEL[28] NEG[1]	NEG[75]	<b>POS[74]</b> NT[1]	POS[54] DEL[18] NT[3]

# **KEY for Table 1**

[ ] - number of labs reporting allele assignment/POS/NEG/NT

POS - Presence of gene

NEG - Absence of gene

NT - Not typed

italics - assignment different from consensus

Subtypes of 2DS4 and 3DP1 are designated as FULL and/or DEL

# **KEY for Tables 2-5**

italics - assignment different from consensus

NGS - Next-generation sequencing

RT-PCR - Real-time PCR

SSO - Sequence-specific oligonucleotide probe based typing

SSP - Sequence-specific primer-based typing

SBT - Sequencing-based typing

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	-													POS[48]+			POS[62]+	
	Consensus I	POS[74]	POS[72]	POS[74]	POS[73]	NEG[74]	POS[75]	POS[74]	POS[73]	NEG[75]	NEG[75]	NEG[75]	NEG[75]	FULL[27]	NEG[75]	POS[74]	FULL,DEL[11]	
5488		POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP
	Ameen, Reem	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	001
	Arnold, Paula	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP
	Askar, Medhat	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	NGS RT-PCR
8073		POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	RT-PCR
		POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
		NEG	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP						
8038		POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSO
		POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	NT	SSP
1461	Cauwelier, Barb	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
774	Cecka, J. Micha	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
3410	Charlton, Ronal	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP
3224	,	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
	Colombe, Beth	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP
189	Crowe, Deborah	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
8095		POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8086	Du, Keming	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
	Ellis, Thomas	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
	Fagoaga, Omar	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
	Fernandez, Cas	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8053	Fernandez-Vina	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSO RT-PCR
762	Fischer, Gottfrie	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP
1778	Freed, Brian M.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP
8047	Fuessel, Monika	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8076	Gaitonde , Sujat	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
1647	Gautreaux, Mich	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	RT-PCR
1108	Glaser, Chris	POS	POS	NEG	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSO
4985	Graff, Ralph J.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8022	Hedlund, Anna	POS	POS	POS	FULL	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP
1694	Hesse, Nicole	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
3808	Hogan, Patrick	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP
5000	Hsu, Susan H.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
2344	Hurley & Hartzm	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP SSO SB
8093	Jindra, Peter	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8074	JunHe,	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP SSO
8035	Kanangat, Siva	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8079	Kashi, Zahra M.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
	Kim, Tai-Gyu	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
	Kimball, Pam	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	RT-PCR
	Kusnierczyk, Pic	POS	NT	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP
8071	Kwok, Janette	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
725	Lardy, N.M.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
278	Lee, Jar-How	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS[74]	POS[72]	POS[74]	POS[73]	NEG[74]	POS[75]	POS[74]	POS[73]	NEG[75]	NEG[75]	NEG[75]	NEG[75]	POS[48]+ FULL[27]	NEG[75]	POS[74]	POS[62]+ FULL,DEL[11]	
2400	Liu, Chang	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8088	Liu, Cong	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8069	Maha, George	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP
5142	Marsh, Steven	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8097	Meunier, Marie-	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8080	Monos, Dimitrio	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8092	Morris, Gerald	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	
8091	Murphey, Cathi	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
733	Mytilineos, Joan	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP NGS
8083	Nikaein, Afzal	POS	POS	POS	POS	NEG	*001	POS	POS	NEG	NEG	NEG	NEG	*001	NEG	POS	POS	SSP
3966	Permpikul, Vejb	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
4021	Pollack, Marilyn	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
8030	Poulton, Kay	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	
8050	Raja, Rajalingar	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP
3753	Reed, Elaine F.	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
3798	Reinsmoen, Nai	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8102	Rombola, Giova	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	*001	NEG	POS	POS	SSP
8090	Rossi, Angela	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP SSO
8060	Rost, Klein &	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
4251	Schiller, Jennife	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO RT-PCR
8101	Seidl, Christian	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP NGS
1426	Senitzer, David	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP RT-PCR
8085	Shalini, Pereira	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	NGS
8104	Sortino, Grazia	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	SSP
3261	Stevens, Tait	POS	NEG	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
5451	Tilanus, Marcel	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSO
8024	Trowsdale, Johr	POS	POS	POS	NT	NEG	POS	NT	NT	NEG	NEG	NEG	NEG	WT	NEG	POS	FULL, DEL	SSP
8028	Uhrberg, Markus	POS	POS	POS	NT	NEG	POS	POS	NT	NEG	NEG	NEG	NEG	POS	NEG	NT	NT	SSP
8023	Vilches, Carlos	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	FULL, DEL	SSP
8098	Xu, Ri	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	FULL	NEG	POS	POS	
1466	Yu, Neng	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP
	Yu, Neng	POS	POS	POS	POS	NEG	POS	POS	POS	NEG	NEG	NEG	NEG	POS	NEG	POS	POS	SSP

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
						POS[58]								POS[47]+			POS[54]+	
	Consensus	POS[75]	NEG[74]	POS[74]	POS[73]	I	POS[75]	POS[74]	POS[73]	POS[74]	POS[74]	NEG[74]	NEG[74]	DEL[28]	POS[74]	POS[74]		
5488	Adams, Sharon	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
	Ameen, Reem	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	001							
	Arnold, Paula	POS	NEG	POS	POS	A	POS	POS	POS	POS	*002-*008		NEG	DEL	POS	POS	DEL	SSP
	Askar, Medhat	POS	NEG	POS	NEG	NEG	DEL	POS	POS	DEL	NGS RT-PCR							
8073			NEG	POS	NEG	NEG	DEL	POS	POS	DEL	RT-PCR							
	Bettinotti, Maria	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
	Bittencourt, Van	POS	NEG	POS	NEG	NEG	POS	POS	POS	NT	SSP							
	Cao, Kai	POS	NEG	POS	NEG	NEG	DEL	POS	POS	POS	SSO							
	Carrington, Mart	POS	NEG	POS	NEG	NEG	DEL	POS	POS	NT	SSP							
	Cauwelier, Barb		NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
	Cecka, J. Micha		NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
	Charlton, Ronale	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
3224	,	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO							
	Colombe, Beth	POS	NEG	POS	POS	A	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS		FULL, DEL	SSP
189		POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO							
	denHollander, N		NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
	Du, Keming	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
	Ellis, Thomas	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
	Fagoaga, Omar	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
234	Fernandez, Cas		NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
8053	Fernandez-Vina	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSO RT-PCR
762	Fischer, Gottfrie	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
1778	Freed, Brian M.	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
8047	Fuessel, Monika	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
8076	Gaitonde , Sujat	POS	NEG	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP						
1647	Gautreaux, Mich	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	RT-PCR							
1108	Glaser, Chris	POS	NEG	POS	NEG	NEG	DEL	POS	POS	POS	SSO							
4985	Graff, Ralph J.	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
8022	Hedlund, Anna	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
1694	Hesse, Nicole	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
3808	Hogan, Patrick	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
5000	Hsu, Susan H.	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO							
2344	Hurley & Hartzm	POS	NEG	POS	POS	A*00101	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	POS	SSP SSO SB1
8093	Jindra, Peter	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
8074	JunHe,	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	POS	SSP SSO
8035	Kanangat, Siva	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
8079	Kashi, Zahra M.	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
4337	Kim, Tai-Gyu	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
8084	Kimball, Pam	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	RT-PCR							
	Kusnierczyk, Pic	POS	NEG	POS	NEG	NEG	DEL	POS	POS	POS	SSP							
8071	Kwok, Janette	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSO							
725	Lardy, N.M.	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS	SSP							
278	Lee, Jar-How	POS	NEG	POS	NEG	NEG	POS	POS	POS	POS								

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS[75]	NEG[74]	POS[74]	POS[73]	POS[58] + A[17]	POS[75]	POS[74]	POS[73]	POS[74]	POS[74]	NEG[74]	NEG[74]	POS[47]+ DEL[28]	POS[74]	POS[74]	POS[54]+ DEL[17]	
2400	Liu, Chang	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8088	Liu, Cong	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8069	Maha, George	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
5142	Marsh, Steven	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8097	Meunier, Marie-	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8080	Monos, Dimitrio:	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8092	Morris, Gerald	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
8091	Murphey, Cathi	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
733	Mytilineos, Joan	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	POS	SSP NGS
8083	Nikaein, Afzal	POS	NEG	POS	POS	Α	*001	POS	POS	POS	*002	NEG	NEG	*003	POS	POS	*003	SSP
3966	Permpikul, Vejb	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
4021	Pollack, Marilyn	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
8030	Poulton, Kay	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	
8050	Raja, Rajalingar	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
3753	Reed, Elaine F.	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
3798	Reinsmoen, Naı	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8102	Rombola, Giova	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	POS	SSP
8090	Rossi, Angela	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP SSO
8060	Rost, Klein &	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
4251	Schiller, Jennife	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO RT-PCF
8101	Seidl, Christian	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP NGS
1426	Senitzer, David	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP RT-PCF
8085	Shalini, Pereira	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	NGS
8104	Sortino, Grazia	POS	NEG	POS	POS	Α	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	POS	SSP
3261	Stevens, Tait	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
5451	Tilanus, Marcel	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSO
8024	Trowsdale, Johr	POS	NEG	POS	NT	POS	POS	NT	NT	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
8028	Uhrberg, Markus	POS	NEG	POS	NT	POS	POS	POS	NT	POS	POS	NEG	NEG	POS	POS	NT	NT	SSP
8023	Vilches, Carlos	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	DEL	SSP
8098	Xu, Ri	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	DEL	POS	POS	POS	
	Yu, Neng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP
	Yu, Neng	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	POS	SSP

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	_					POS[63]+								POS[46]+			POS[62]+	
	Consensus	POS[75]	POS[75]	NEG[72]	POS[73]	A, B[11]	POS[75]	POS[74]	POS[73]	POS[75]	POS[75]	POS[75]	POS[75]	DEL[28]	POS[75]	POS[74]	FULL,DEL[10]	
5488	Adams, Sharon	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP
	Ameen, Reem	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	
	Arnold, Paula	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	*002-*008		POS	DEL	POS	POS	FULL, DEL	SSP
5133	Askar, Medhat	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	FULL, DEL	NGS RT-PCR
8073	Bengtsson, Mats	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	FULL, DEL	RT-PCR
713	Bettinotti, Maria	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8026	Bittencourt, Van	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8038	Cao, Kai	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSO
8025	Carrington, Mart	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	NT	SSP
1461	Cauwelier, Barb	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
774	Cecka, J. Micha	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
3410	Charlton, Ronald	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP
3224	Chen, Dong-Fer	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
3632	Colombe, Beth \	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	FULL, DEL	SSP
189	Crowe, Deborah	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
		POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
	Du, Keming	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
	Ellis, Thomas	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
	0 0 /	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
	Fernandez, Cas	POS	POS	NEG	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
	Fernandez-Vina	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSO RT-PCR
	Fischer, Gottfrie	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP
	Freed, Brian M.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP
	Fuessel, Monika	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
		POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
	Gautreaux, Mich	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	RT-PCR
	,	POS	POS	NEG	POS	POS POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS POS	SSO
	Graff, Ralph J. Hedlund, Anna	POS	POS	NEG NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS POS	POS	POS	POS	_	SSP
	Hesse, Nicole	POS POS	POS	NEG	FULL	POS	POS	POS	POS	POS	POS	POS	POS	DEL POS	POS	POS	FULL, DEL POS	SSP
	,	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS		SSP
	Hogan, Patrick Hsu, Susan H.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	FULL, DEL POS	SSP SSO
5000	nsu, Susan n.	FU3	FU3	NEG	FU3	1 00	PU3	FU3	FU3	FU3	FU3	FU3	PU3	FU3	PU3	FU3	P03	33P 33U
						A*00101												
2344	Hurley & Hartzm	POS	POS	NEG	POS	A*00101, B*00201	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP SSO SBT
	•	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO 350 351
	Jindia, Peter JunHe,	POS	POS	NEG	POS	A, B	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP SSO
	Kanangat, Siva	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
	Kashi, Zahra M.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
	Kim, Tai-Gyu	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
	Kimball, Pam	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	RT-PCR
	Kusnierczyk, Pic	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP
	Kwok, Janette	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
	Lardy, N.M.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS[75]	POS[75]	NEG[72]	POS[73]	POS[63]+ A, B[11]	POS[75]	POS[74]	POS[73]	POS[75]	POS[75]	POS[75]	POS[75]	POS[46]+ DEL[28]	POS[75]	POS[74]	POS[62]+ FULL,DEL[10]	
278	Lee, Jar-How	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	
2400	Liu, Chang	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8088	Liu, Cong	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8069	Maha, George	POS	POS	NEG	POS	A, B	POS	DEL	POS	POS	FULL, DEL	SSP						
5142	Marsh, Steven	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8097	Meunier, Marie-0	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8080	Monos, Dimitrios	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8092	Morris, Gerald	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	
8091	Murphey, Cathi	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
733	Mytilineos, Joan	POS	POS	NEG	POS	A, B	POS	DEL	POS	POS	POS	SSP NGS						
8083	Nikaein, Afzal	POS	POS	NEG	POS	POS	*001	POS	POS	POS	*002	POS	POS	*003	POS	POS	POS	SSP
3966	Permpikul, Vejba	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
4021	Pollack, Marilyn	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
8030	Poulton, Kay	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	
8050	Raja, Rajalingar	POS	POS	NEG	POS	A, B	POS	DEL	POS	POS	FULL, DEL	SSP						
3753	Reed, Elaine F.	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
3798	Reinsmoen, Nar	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8102	Rombola, Giova	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP
8090	Rossi, Angela	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP SSO
8060	Rost, Klein &	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO RT-PCR
8101	Seidl, Christian	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	SSP NGS
1426	Senitzer, David	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	DEL	SSP RT-PCR
8085	Shalini, Pereira	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	NGS
8104	Sortino, Grazia	POS	POS	NEG	POS	A, B	POS	DEL	POS	POS	POS	SSP						
3261	Stevens, Tait	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
5451	Tilanus, Marcel	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSO
8024	Trowsdale, Johr	POS	POS		NT	POS	POS	NT	NT	POS	POS	POS	POS	DEL	POS	POS	FULL, DEL	SSP
8028	Uhrberg, Markus	POS	POS	POS	NT	POS	POS	POS	NT	POS	POS	POS	POS	NEG	POS	NT	NT	SSP
8023	Vilches, Carlos	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	FULL, DEL	SSP
8098	Xu, Ri	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	DEL	POS	POS	POS	
	Yu, Neng	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP
	Yu, Neng	POS	POS	NEG	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	POS	SSP

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	_					POS[58]+											POS[54]+	
	Consensus	POS[75]	POS[74]	POS[75]	POS[73]	B[17]	POS[74]*	POS[74]	POS[73]	NEG[74]	NEG[74]	POS[74]	POS[74]	POS[46]	NEG[74]	POS[74]	DEL[18]	
5488	Adams, Sharon	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
8094	Ameen, Reem	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	
5462	,	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
5133	,	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	NGS RT-PCR
8073	Bengtsson, Mats		POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	RT-PCR
	Bettinotti, Maria	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8026			POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	NT	SSP
8038	Cao, Kai	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSO
8025	Carrington, Marti		POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	NT	SSP
1461	Cauwelier, Barba		POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
774	,		POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
3410	Charlton, Ronald	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
3224	Chen, Dong-Fen	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
3632			POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
189		POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
8095	- ,		POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
	·	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
705	-	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
	Fagoaga, Omar	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
		POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8053		POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSO RT-PCR
	Fischer, Gottfried	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
1778	,	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
8047	,	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8076	Gaitonde , Sujata		POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
1647		POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	RT-PCR
1108	Glaser, Chris	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSO
4985	,	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
	Hedlund, Anna	POS	POS	POS	FULL	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
1694		POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
3808	,	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
5000	•	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
	Hurley & Hartzm	POS	POS	POS	POS	B*00201V	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP SSO SBT
8093	Jindra, Peter	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8074	JunHe,	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP SSO
	Kanangat, Siva	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
	Kashi, Zahra M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
	Kim, Tai-Gyu	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
	Kimball, Pam	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	RT-PCR
	Kusnierczyk, Pio		POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
	Kwok, Janette	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
	Lardy, N.M.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
	Lee, Jar-How	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	

CTR	Investigator	2DL1	2DL2	2DL3	2DL4	2DL5	3DL1	3DL2	3DL3	3DS1	2DS1	2DS2	2DS3	2DS4	2DS5	2DP1	3DP1	Method
	Consensus	POS[75]	POS[74]	POS[75]	POS[73]	POS[58]+ B[17]	POS[74]*	POS[74]	POS[73]	NEG[74]	NEG[74]	POS[74]	POS[74]	POS[46]	NEG[74]	POS[74]	POS[54]+ DEL[18]	
2400	Liu, Chang	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8088	Liu, Cong	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8069	Maha, George	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
5142	Marsh, Steven	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8097	Meunier, Marie-C	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8080	Monos, Dimitrios	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8092	Morris, Gerald	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	
8091	Murphey, Cathi	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
733	Mytilineos, Joann	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP NGS
8083	Nikaein, Afzal	POS	POS	POS	POS	В	*001	POS	POS	NEG	NEG	POS	POS	*003	NEG	POS	*003	SSP
3966	Permpikul, Vejba	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
4021	Pollack, Marilyn	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
8030	Poulton, Kay	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	
8050	Raja, Rajalingan	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
3753	Reed, Elaine F.	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
3798	Reinsmoen, Nan	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8102	Rombola, Giovar	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
8090	Rossi, Angela	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP SSO
8060	Rost, Klein &	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
4251	Schiller, Jennifer	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO RT-PCR
0404	0 : 11 01 : 11	DOO	<b>D</b> 00	500	500		200	D00	500	NEO	NEO	500	*001- *004/ *006-	551	NEO	500	DEL	00D NO0
8101	Seidl, Christian	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	*007	DEL	NEG	POS	DEL	SSP NGS
1426	,	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP RT-PCR
8085	Shalini, Pereira	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	NGS
8104	Sortino, Grazia	POS	POS	POS	POS	В	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	SSP
3261	Stevens, Tait	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
5451	Tilanus, Marcel (		POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSO
8024	Trowsdale, John	POS	POS	POS	NT	POS	POS	NT	NT	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
8028	U,	POS	POS	POS	NT	POS	POS	POS	NT	NEG	NEG	POS	POS	NEG	NEG	NT	NT	SSP
		POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	DEL	SSP
		POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	DEL	NEG	POS	POS	
1466	, 3	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP
5282	Yu, Neng	POS	POS	POS	POS	POS	POS	POS	POS	NEG	NEG	POS	POS	POS	NEG	POS	POS	SSP

	cipating Center		0:1	01.1.	0	A1			0:1	01 - 1 -	0
Name			City	State	Country	Name			City	State	Country
Ameen	Reem	Dr	Jabriya		Kuwait	Kim	Tai-Gyu	Prof	Seoul		S. Korea
Arnold	Paula	PhD	Memphis	TN		Kimball	Pam	Dr	Richmond	VA	
Askar	Medhat	Dr	Dallas	TX		Kusnierczyk	Piotr	PhD	Wroclaw		Poland
Bengtsson	Mats	MD	Uppsala		Sweden	Kwok	Janette	Dr			Hong Kong
Bettinotti	Maria	PhD	Baltimore	MD		Lardy	N.M.	Dr	Amsterdam		Netherlands
Bittencourt	Vanessa Zaiatz		Dublin		Ireland	Lee	Jar-How	Dr	Woodland Hills	CA	
Cao	Kai	Dr	Houston	TX		Liu	Chang	MD, PhD	St Louis	MO	
Carrington	Martin &	Drs	Frederick	MD		Liu	Cong	PhD	Grand Rapids	MI	
Cauwelier	Barbara	Dr	Brugge		Belgium	Maha	George	PhD	Burlington	NC	
Cecka	J. Michael	PhD	Honolulu	HI		Marsh	Steven	Prof	London		United Kingdom
Chen	Dong-Feng	PhD	Durham	NC		Meunier	Marie-Christine	PhD	Montreal, Quebe	2	Canada
Colombe	Beth W.	PhD	Philadelphia	PA		Monos	Dimitrios	PhD	Philadelphia	PA	
Crowe	Deborah	PhD	Nashville	TN		Morris	Gerald	MD, PhD	San Diego		
denHollander	Neal	Dr	Toronto, ON		Canada	Murphey	Cathi	PhD	San Antonio	TX	
D'Orsogna	Lloyd	Dr	Murdoch		Australia	Mytilineos	Joannis	MD	Ulm		Germany
Du	Keming		Shanghai		China	Nikaein	Afzal	PhD	Dallas	TX	
Ellis	Thomas	Dr	Madison	WI		Permpikul	Vejbaesya &	Drs	Bangkok		Thailand
Ellison	Cynthia	PhD	Winnipeg, MB		Canada	Pollack	Marilyn S.	PhD	Oakland	CA	
Fagoaga	Omar	Dr	Detroit	MI		Poulton	Kay	Dr	Manchester		United Kingdom
Fernandez	Casiana		Miami	FL		Raja	Rajalingam	PhD	San Francisco	CA	
Fernandez-Vina	Marcelo	Dr	Palo Alto	CA		Reed	Elaine F.	PhD	Los Angeles	CA	
Fischer	Gottfried	Dr	Vienna		Austria	Reinsmoen	Nancy L.	PhD	Los Angeles	CA	
Freed	Brian	PhD	Aurora	СО		Roberts	Chrissy H.		London		United Kingdom
Fuessel	Monika	PhD	Dresden		Germany	Rombola	Giovanni	Dr	Firenze		Italy
Gaitonde	Sujata	Dr	Chicago	IL		Rossi	Angela	Dr	Piacenza		Italy
Gautreaux	Michael	Dr	Winston-Salem	NC		Rost	Klein &	Drs	Martinsried		Germany
Glaser	Chris		Waukesha	WI		Schiller	Jennifer	PhD	Milwaukee	WI	
Graff	Ralph J	Dr	St Louis	МО		Seidl	Christian	Prof Dr	Frankfurt		Germany
Hedlund	Anna		Stockholm		Sweden	Senitzer	David	PhD	Duarte	CA	
Hesse	Nicole		Lich		Germany	Shalini	Pereira		Seattle	WA	
Hogan	patrick	Dr	Brisbane QLD		Australia	Stevens	Tait	Dr	Loma Linda	CA	
Hsu	Susan H.	PhD	Philadelphia	PA		Tilanus	Marcel G.J.	Prof Dr	Maastricht		Netherlands
Hurley	Hartzman&	Drs	Rockville	MD		Trowsdale	John	Prof	Cambridge		United Kingdom
Jindra	Peter	PhD	Houston	TX		Uhrberg	Markus	Dr	Dusseldorf		Germany
JunHe			Beijing		China	Vilches	Carlos	Dr	Majadahonda		Spain
Kanangat	Siva	PhD	Chicago	IL		Xu	Ri		BDA Beijing		China
Kashi	Zahra M.	Dr	Portland	OR		Yu	Neng	Dr	Dedham	MA	
Khuu	Hanh	Dr	Bethesda	MD		Yu	Neng	Dr	Worcester	MA	